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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|-----------------------|------------------|
| 09/618,876 | 07/19/2000 | Anatoly Z. Rosenflanz | 55763USA3A | 1595 |
| 32692 | 7590 | 06/06/2006 | EXAMINER | |
| 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427 | | | MARCHESCHI, MICHAEL A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1755 | |

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,876

Applicant(s)

ROSENFLANZ, ANATOLY Z.

Examiner

Michael A. Marcheschi

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/9/05 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-28,30-35,41 and 44-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-8,10,11,16-28,30-35,41,44-72,75-80 and 82-88 is/are allowed.
- 6) ☒ Claim(s) 12-15,73 and 74 is/are rejected.
- 7) ☒ Claim(s) 9,81 and 89 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/9/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Applicant is reminded that the claims pages need to conform with the new rules (all claims, including the canceled claims, need to be defined on the claim pages with the correct status identifier).

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/9/05 has been entered.

The following office action refers to the claims submitted on 4/25/06.

After further review of the claims submitted 4/25/06, the following rejections and objections apply.

Claims 9, 81 and 89 are objected to because of the following informalities:

Claim 9 is objected to because line 2 defines "comprise comprises".

Claims 81 and 89 are objected to because line 2 of each claim defines "mild steel tool steel" and a comma should be present between each type of steel.

Appropriate correction is required.

Claims 12-15 and 73-74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is indefinite because it defines that the complex further comprises the claimed cations, however, claim 41, defines 2 different complexes (first and second complex) and the examiner is unclear as to which complex claim 12 is referring to.

Claims 13-15 are indefinite as to the limitations “said fused (crystalline) abrasive particles comprising at least 20 percent by volume...respective particle...eutectic material ” (lines 4-5) and “said fused crystalline abrasive particles comprise at least 50 percent by volume...respective particle...eutectic material” (lines 11-13) because these 2 limitations define 2 different contents for the eutectic material, thus rendering the scope of the claims unclear because the examiner is unclear as to what content applicant is claiming. A claim that defines 2 independent and distinct contents is indefinite as to the specific content sought by applicant. It is suggested that the content (50 percent by volume) defined in lines 11-13 of the above claims be canceled.

Claims 13-15 are also indefinite because they defines that a portion of said complex further comprises the claimed cations, however, the claims, above this limitation, defines 2 different complexes (first and second complex) and the examiner is unclear as to which complex the last 2 lines of the claims is referring to.

Claim 73 is indefinite because it defines that the eutectic is a 3 component system but claim 72 only requires a 2 component system (no crystalline aluminum oxide). Is this crystalline aluminum oxide a further component in the eutectic? If so, the claim should define this.

Claim 74 is indefinite because it defines that the eutectic is a 3 component system but claim 72 only requires a 2 component system (no different crystalline complex). Is this different crystalline complex a further component in the eutectic? If so, the claim should define this.

Claims 2-8, 10, 11, 16-28, 30-35, 41, 44-72, 75-80, 82-88 are allowable over the prior art of record.

Claims 12-15 and 73-74 would be allowable if amended to overcome the indefinite rejections above.

Claims 9, 81 and 89 would be allowable if amended to overcome the objections defined above.

Notwithstanding applicants arguments with respect to the abrasive particle and specified nominal grade limitations defined in the response filed 6/12/02, the examiner now finds the claimed invention to be novel over the cited reference because said references **fail to teach the specifically claimed eutectic composition of the instant claims**. Although the examiners previous rejections have been all based on the references as teaching the claimed eutectics, after further review of the references, the examiner interprets the reference teachings of a eutectic as that of a conventionally known eutectic (i.e. alumina/zirconia eutectic) and **not** a eutectic which is formed from any and all of the components defined in the broad listing according to the references. **In other words, the prior art does not suggest that the claimed components**

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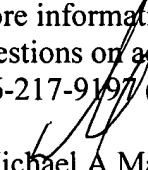
(components of the independent claims) form a eutectic, thus the instant claims are novel with respect to the claimed eutectic composition of the abrasives particles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/31/06
MM


Michael A Marcheschi
Primary Examiner
Art Unit 1755